

## ABSTRACT OF THE DISCLOSURE

A plasma probe that includes a substrate having substantially the same properties as those of a substrate to be processed, a bottom electrode layer located over the substrate and electrically isolated therefrom, a dielectric layer positioned over the bottom electrode layer including apertures through which one or more electrodes of the bottom electrode layer are exposed, and at least one upper electrode layer that is electrically isolated from the bottom electrode layer by way of the dielectric layer. Electrodes of the bottom and upper electrode layers communicate with meters which may provide real-time data representative of one or more properties of a region of a plasma to which the electrodes are exposed. The plasma probe may be fabricated by forming the bottom electrode layer over the substrate and separately forming one or more upper electrode layers over a sacrificial substrate. These structures are assembled with the dielectric layer therebetween.

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